

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-009593**Date Inspected:** 13-Oct-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Xu Yumin**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Crossbeams**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG CROSS BEAM CB1

This crossbeam has been loaded on the ship.

OBG CROSS BEAM CB2

This crossbeam has been loaded on the ship.

OBG CROSS BEAM CB3

This crossbeam has been loaded on the ship.

OBG CROSS BEAM CB4

This QA observed ZPMC qualified welding personnel identified as 062092 perform SMAW repair welding on various side panel stiffener hold back welds on the inside of this crossbeam. ZPMC QC identified as Mr. Yu Xin

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was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-345-SMAW-2G (2F)-FCM-repair and WPS-345-SMAW-4G (4F)-FCM-repair-1.

OBG CROSS BEAM CB5

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

OBG CROSS BEAM CB6

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

OBG CROSS BEAM CB7

This QA observed ZPMC Magnetic particle Testing (MT) technician identified as Mr. Jin Jian Ting perform MT of various fillet and Complete Joint Penetration (CJP) welds inside of this crossbeam. The technician marked numerous areas for repair. Several areas had already been excavated and/or repaired prior to QA arrival. This QA observed one Fracture Critical fillet Weld (FCW) identified as CB201G-014-165 that had been excavated by grinding. The excavated area was approximately 50mm in length and was removed all the way to the root. QA observed what appeared to be porosity in the root area of the weld. ZPMC QC identified as Mr. Tian Lei indicated that the discontinuity was porosity and that a Critical Weld Repair (CWR) was not necessary for this repair. After review of the contract documents this QA concurred with QC that this repair did not appear to meet the criteria of a CWR. QA noted that ZPMC did not appear to complete all of the MT required on this crossbeam prior to the end of the shift.

OBG CROSS BEAM CB8

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

OBG CROSS BEAM CB9

This QA observed ZPMC qualified welding personnel identified as 053609 perform FCAW welding on weld joint identified as CB202G-022-047. This joint is one of several joints ZPMC has changed from a fillet weld to a CJP weld. ZPMC QC identified as Mr. Li Chuang Gang was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2233-Tc-U4c-F.

OBG CROSS BEAM CB10

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

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OBG CROSS BEAM CB11

This QA observed that ZPMC has removed this crossbeam from OBG bay 5 and relocated it behind OBG bay 14 in order to turn it over. ABF QA inspector identified as Mr. Yu Kum Ming informed this QA that ZPMC intends to return it to bay 5 after they turn it over. No other significant work was observed on this crossbeam during the time QA was present.

OBG CROSS BEAM CB12

This QA observed ZPMC qualified welding personnel identified as 069118 perform FCAW welding on weld joint identified as CB201A-012-017. ZPMC QC identified as Mr. GuoYan Fei was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2232-Tc-U4b-F.

OBG CROSS BEAM CB13

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

OBG CROSS BEAM CB14

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

OBG CROSS BEAM CB15

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

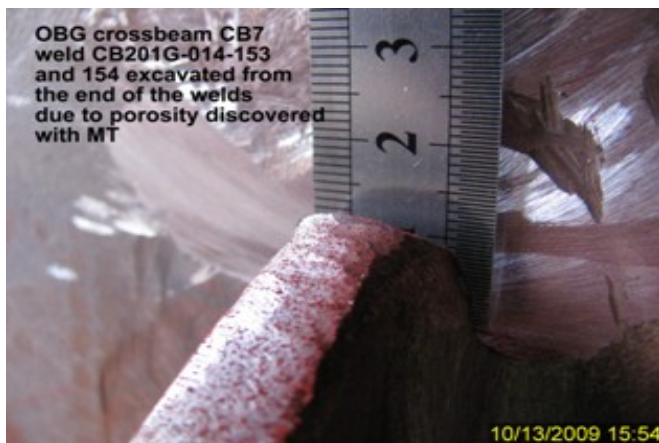
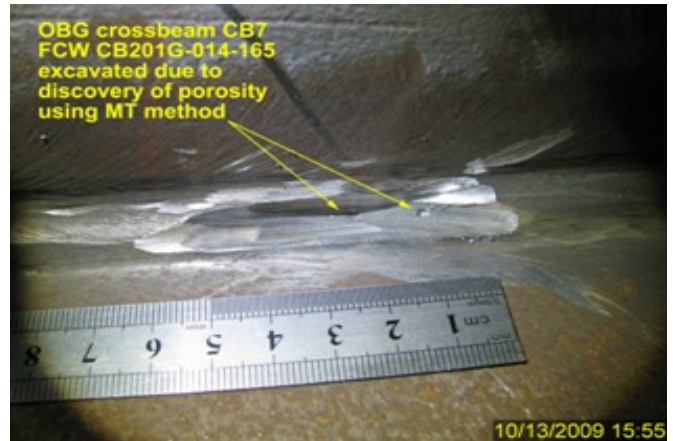
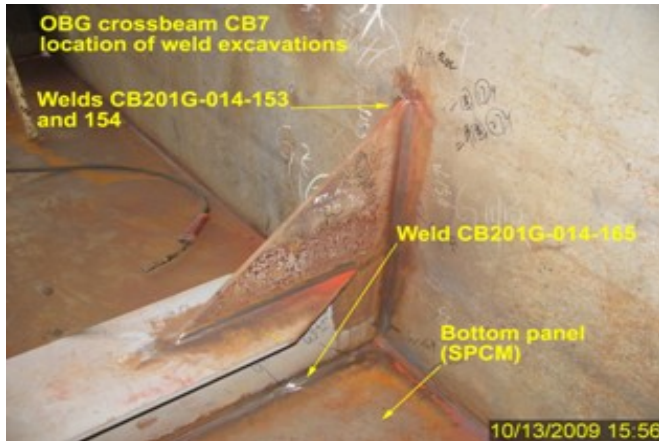
OBG CROSS BEAM CB16

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

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Summary of Conversations:

As mentioned above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang (15000422372), who represents the Office of Structural Materials for your project.

Inspected By:	Hall,Steven	Quality Assurance Inspector
Reviewed By:	Patterson,Rodney	QA Reviewer
